AUTOMOTIVE FINISHES

2.1 VOC, DIRECT TO METAL
High Solids Urethane Primer
E2A819 Neutral Gray

PRODUCT DATA

PRODUCT DESCRIPTION
E2A819 High Solids Urethane Primer is an air dry or low bake, direct to metal, high performance urethane primer designed for Fleet, Truck and Original Equipment Manufacturers that require a VOC compliant system. E2A819 Urethane Primer, depending on reduction, has a VOC of 2.1 with exempt solvents, 2.8 without exempt solvents.

TECHNICAL DATA
- Color: Neutral Gray
- Weight/Gallon (E2A819): 15.70 lbs/gal
- Mixing Ratio by Volume at 2.02 lbs/gal VOC E2A819 : VS100/R7K7210 : V6V815: 4 : 1 : 1
- Volume Solids at 4 : 1 : 1: 59.0%
- Coverage at 1 mil (dry): 949 sq. ft/gal
- Pot life at 70-80ºF unaccelerated: 2 - 3 hours
- Pot life at 70-80ºF with 2 oz per ready to spray gallon of GA1097: 1 – 1.5 hours
- VOC using R7K7210 or VS100 at 4 : 1 : 1 excluding exempts: 2.01 lbs/gal
- VOC using R7K7210 or VS100 with 2 oz per RTS gallon GA1097 at 4 : 1 : 1 excluding exempts: 2.14 lbs/gal
- HAPS Status: Compliant, Non-Photochemically Reactive
- Flash Point
  - E2A819: 99°F TOC
  - V6V815: 406°F TOC
  - R7K7210: -4°F TOC
  - VS100: -4°F TOC
- Viscosity at 4 : 1 : 1 #2 Zahn Cup: 13-17 sec
- Performance after one week air dry (over Galvaneal and using SUNFIRE® Low VOC as topcoat)
  - Humidity Resistance – 100 hours: Pass
  - Impact Resistance (direct at 80 in-lbs): Pass
  - Flexibility (1/8” conical mandrel): Pass
  - Salt spray resistance – 250 hours: Pass
  - Gloss Holdout (at 15 minute re-coat): Excellent
- Recommended dry film thickness (2 coats): 1.5 – 2.0 mil

SURFACE PREPARATION:
Bare Substrates: Steel, Galvanized Steel, Aluminum*
**Note: With the inconsistencies of substrates, consult your local SHERWIN–WILLIAMS Representative for system recommendations and substrate testing.*

1. Solvent clean with SHER-WILL-CLEAN® Solvent Cleaner R7K156 or AQUA-MATE™ Low VOC Surface Cleaner W4K157 and wipe dry with a clean, dry cloth.
2. Mechanically abrade all bare metal. For optimum performance over hot-rolled steel, a media blast is required to remove any surface impurities.
3. Solvent clean with SHER-WILL-CLEAN® Solvent Cleaner R7K156 or AQUA-MATE™ Low VOC Surface Cleaner W4K157 and wipe dry with a clean, dry cloth. For hot-rolled steel, proceed to primer application.

(For the above products refer to the appropriate product label or data page for complete information.)

Prepainted Substrates:
1. Wash surfaces with a mild detergent in hot water. Rinse well and wipe dry with a clean, dry cloth.
2. Solvent clean surfaces with UltraClean® Surface Cleaner R7K158, SHER-WILL-CLEAN® Solvent Cleaner R7K156 or AQUA-MATE™ Low VOC Surface Cleaner W4K157. Wipe dry with a clean, dry cloth.
3. Grind repair area to remove paint and all rust as needed. Fill as needed using an appropriate body filler. Allow body filler to tack up and shape as needed.
4. Sand repair area and featheredge using 80, 180, 280, and finish with 320 grit treated sandpaper on a random orbital sander. Solvent clean to remove sanding residue before recoating.

MIXING
1. Stir or shake HS Urethane Primer thoroughly before mixing.
2. 2.01 lbs/gal VOC

E2A819	4	parts
VS100/R7K7210*	1	part
V6V815	1	part

**Note: For increased temperatures, ES20 can be used for improved overspray acceptance and melt-in.*
3. Up to 2oz. Of GA1097 Accelerator may be added to 1 gallon of Ready –To-Spray blend of the above to reduce dry times. Each ounce of GA1097 added, increases the VOC of the product 0.06 lbs./gal.
4. Stir thoroughly and strain before using.

APPLICATION

1. For proper results use the following equipment recommendations. Check equipment by applying High Solids Urethane Primer-Sealer to a test panel before using.
2. Apply 1 wet coat or 2 medium coats of High Solids Urethane Primer-Sealer to achieve the recommended dry film thickness of 2.0 mils.

- **Pressure Feed:**

Gun:	DeVilbiss JGA 502	Fluid Delivery:	10-12 ounces/minute
Fluid Tip:	FF or FX	Atomizing air psi:	50-55 at gun
Air Cap:	797	Gun Distance:	10-12 inces

Binks Model 85 B 95/HVLP		**Kremlin KMP Conventional**		**Kermlin M21 HVLPSATA jet/K-NR**			
Fluid Tip:	63B	Fluid Tip:	#15 (.055")	Fluid Tip/Needle:	#209 (.035)	Fluid Tip	NR-95 (.0895)
Needle:	63AE	Air Cap:	33	Air Cap:	LP3	Air Cap	NR-95 (.08)
Air Cap:	PW	Atomizing air psi:	55 psi @ gun	Atomizing Air:	10 psi at Cap	Atomizing Air:	10 psi at Cap
Atomizing air psi:	35-45 psi @ gun	Fluid Delivery:	6-8 oz/min	Fluid Delivery:	6-8 oz/min	Fluid Delivery	6-8 oz/min
Fluid Delivery:	6 oz/min	Kilovolts:	75 KY	Gun Distance:	4-6 inches	Gun Distance	4-6 inches
Kilovolts:	60 KV	Gun Distance:	10-12 inches				

- ***Clean spray equipment immediately after use with a quality solvent cleaner. The best flushing solvents for E2A819 Primer are ketones (MEK, MIBK, etc.) Blends containing alcohols can cause the formation of unstable material.***

DRYING SCHEDULE

- **Air Dry:** @ 75 °F and 2.0 mils, dry times will be extended by thicker films. Higher temperatures and/or humidity will decrease dry times.

Using V6V815 Hardener

	Unaccelerated	1 Ounces GA1097 per RTS Gallon	2 Ounces GA1097 per RTS Gallon
Hand Slick	5 minutes	<5 minutes	<5 minutes
Topcoatable	30 minutes	20 minutes	15 minutes
Dust free	2 hours	1 hour	30 minutes
Tack free	2-3 hours	1 hour	<1 hour
Dry to sand	4 hours	2 hours	1 hour

- **Bake:** 30 minutes at 180°F
  Dry to sand – after 15 minutes cool down
  Dry to recoat – after 15 minutes cool down.

RECOATING

Standard Using V6V815 Hardener with or without GA1097 Accelerator

1. E2A819 Urethane Primer may be topcoated after 45 minutes without accelerator and in 15-30 minutes with accelerator.
2. Recoat within 12 hours for optimum topcoat adhesion and up to 72 hours in non-sanding applications. (See notes below.)
3. After 72 hours thoroughly sand with 320 or 400 grit paper before topcoating for best adhesion results.

Note: Minimum recoat times will be extended if substrate and/or ambient temperatures are below normal.

- When using E2A819 Urethane Primer, allow topcoat to cure 72 hours before applying decals. Extend dry time in cool temperatures or if using large, thick, or foil backed decals
- When topcoating with ACRYLYD® 5.0 and ACRYLYD® HS 3.5, E2A819 must be sanded after 48 hours.

PRODUCT – AT - GLANCE
E2A819 Urethane Primer

USE

- A premium quality, low VOC, air dry or low bake, urethane primer.
- High solids provides cross-coat coverage (double pass).
- Sprayable Volatile Organic Content of 2.02-2.13 pounds/gallon.
- Ideal as an OEM finish and refinish coating for fleets, trucks, and special vehicles.

SUITABLE SUBSTRATES

- Cold Rolled Steel
- Electro-galvanized Steel
- Hot Rolled Steel
- Aluminum
- Fiberglass

SURFACE PREPARATION

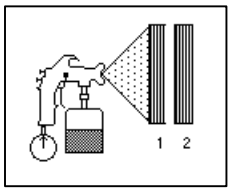
- **Wash** surfaces with a mild detergent in hot water. Rinse well and wipe dry with clean cloth.
- **Solvent clean** with an appropriate Sherwin-Williams solvent cleaner, and wipe dry with a clean cloth.
- **Scuff sand with 180- 320 grit sand paper.**
- **Reclean** with an appropriate Sherwin-Williams solvent cleaner, and wipe dry with a clean cloth.
- Stir or shake E2A819 Primer thoroughly before mixing
- Mix thoroughly before applying.
  - *For 2.02 VOC, mix 4 parts E2A819 to 1 parts R7K7210* to 1 part V6V815.*
  - **Note: For increased temperatures, ES20 can be used for improved overspray acceptance and melt-in.*
  - *Pot life @ 4 : 1 : 1 = >2 hours.*

2.01 VOC

4 E2A819 + 1 R7K7210 + 1 V6V815

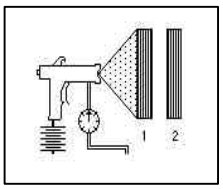
APPLICATION

Pressure Feed*
Apply 2 light to medium coats.



45-55 psi
Fluid Delivery: 10-12 oz/min

Electrostatic
Apply 1 wet or 2 medium coats.



Binks Model 85B
Kremlin KMP Conventional
6-8 oz/min

TOPCOAT

- SUNFIRE® 3.5 Low VOC Basecoat/Clearcoat
- SUNFIRE® Acrylic Urethane Enamel
- SUNFIRE Low VOC Acrylic Urethane Enamel
- ACRYLYD® 5.0 and HS
- 3rd Dimension® 3.5 HS Urethane Enamel
- SUNFIRE® BC/CC Acrylic Urethane Enamel
- GENESIS® Basecoat/Clearcoat
- GENESIS® 2.8/3.5 Low VOC Acrylic Urethane
- ULTRA 7000 Basecoat

NOTES

- To speed cure time, add up to 2 ounces GA1097 Accelerator per sprayable gallon.
- Clean equipment immediately with non-alcohol containing solvents.
- Thicker film build will extend drying times.
- If E2A819 Primer is allowed to air dry 72 hours, thoroughly sand with 320 or 400 grit paper before recoating.
- When topcoating with ACRYLYD® 5.0 and ACRYLYD HS 3.5, E2A819 must be sanded after 48 hours.
- Higher temperatures and/or humidity will shorten dry times as well as pot life.
- When using E2A819 Primer, allow topcoat to cure 72 hours before applying decals. Extend dry time to 5 days in cool temperatures or if using large, thick, or foil backed decals.
- If wet sanding E2A819 excess water must be driven-out by heat or time (24 hours).
- Recommended dry film thickness is 1.5-2.0 mils.

PERSONAL PROTECTION

- Read all label directions before use.
- Refer to MSDS for specific information.
- Wear a NIOSH approved organic vapor respirator when mixing and applying.
- Wear a NIOSH approved dust particulate mask when sanding.
- Wear safety glasses, coveralls, respirator and latex gloves when using product.

PRODUCT DATA

To learn more about Sherwin-Williams Automotive products, visit our Web site at www.sherwin-autopaint.com

Cleveland. Ohio 44115

PRINTED IN USA

AS2473
08/01